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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,347	07/31/2001	Noel John de Souza	U 013560-1	2749

140 7590 09/29/2005

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NEW YORK, NY 10023

EXAMINER

SEAMAN, D MARGARET M

ART UNIT PAPER NUMBER

1625

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/919,347

Applicant(s)

DE SOUZA ET AL.

Examiner

D. Margaret Seaman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 326-363 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 326,329-332,341-344,346,348 and 350-363 is/are rejected.
- 7) ☒ Claim(s) 327,328,333-340,345,347 and 349 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This case was filed 7/31/01 and claims benefit of Provisional Applications 60/222201 (8/1/00), 60/286291 (4/25/01) and 60/287104 (4/27/01). RCE papers were filed 5/17/04 and a response to the last office action was filed 9/9/2004. Claims 198-325 have been canceled. Claims 326-363 are before the Examiner.

### *Claim Rejections - 35 USC § 102/103*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

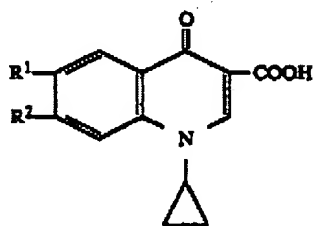
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 326, 329-332, 341-344, 346, 348 and 350-363 are rejected under 35 U.S.C. 102(b) as being anticipated by Grohe (US Patent #4,563,459).

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Grohe teaches the first compound of column 9 that anticipates the instantly claimed compounds wherein R7 is NR9R10, where NR9R10 together make a heterocyclic ring and is substituted by alkyl. Grohe teaches also compound 25 column 25 which is



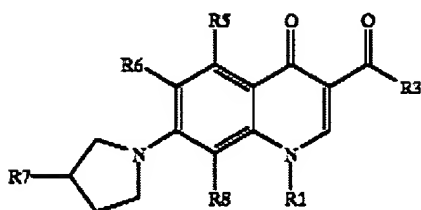
Example No.	R <sup>1</sup>	R <sup>2</sup>
25	H	

and this compound anticipates the instant claim. The method of treating microbial infections by using an efflux pump inhibitor is inherently covered by Grohe because the end results of using the compounds taught by Grohe is the same, no matter what the pathway to treating the microbial infection.

4. Claims 326, 329-332, 341-344, 346, 348 and 350-363 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ledoussal (US Patent # 6,329,391).

Ledoussal teaches

Formula 2



In the following examples, R<sub>1</sub> is cyclopropyl, R<sub>3</sub> is hydroxy.

Example	R5	R6	R7	R8
1	-NH <sub>2</sub>	H	-NH <sub>2</sub>	Cl
2	-NH <sub>2</sub>	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
3	-NH <sub>2</sub>	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
4	F	H	-NH <sub>2</sub>	Cl
5	F	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
6	F	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
7	-OCH <sub>3</sub>	H	-NH <sub>2</sub>	Cl
8	H	H	-CH <sub>2</sub> NH <sub>2</sub>	CH <sub>3</sub>
9	H	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	CH <sub>3</sub>
10	-OH	H	-NH <sub>2</sub>	Cl
11	-OH	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
12	-OH	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
13	H	H	-NH <sub>2</sub>	Cl
14	H	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
15	H	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
16	H	H	-NH <sub>2</sub>	OCH <sub>3</sub>
17	H	H	-CH <sub>2</sub> NH <sub>2</sub>	OCH <sub>3</sub>

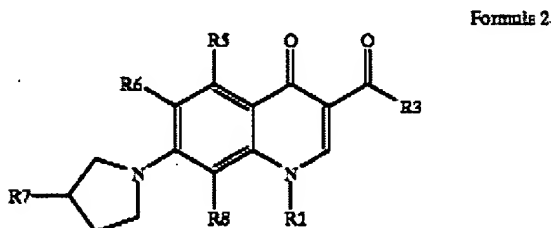
example 16 that fully anticipates compounds encompassed by the method of treatment claims. Ledoussal teaches that these compounds treat microbial infections. Due to this, the method of treatment claims 202-294 and 320 are inherently encompassed. For inherency, Ledoussal teaches the compounds as treatments for microbial infections. The instant claims are drawn to a method of suppressing growth of a microbe expressing an efflux pump. However, the end result is that the compounds encompassed by the instant claims and the compounds taught by Ledoussal both treat microbial infections. The compounds used are the same and the end result is the same. Therefore, the methods are inherently taught by Ledoussal.

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5. Claims 326, 329-332, 341-344, 346, 348 and 350-363 are rejected under 35

U.S.C. 102(b) as being anticipated by Ledoussal (US Patent #6,329,391).

Ledoussal teaches



In the following examples, R<sub>1</sub> is cyclopropyl, R<sub>3</sub> is hydroxy,

Example	R5	R6	R7	R8
1	-NH <sub>2</sub>	H	-NH <sub>2</sub>	Cl
2	-NH <sub>2</sub>	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
3	-NH <sub>2</sub>	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
4	F	H	-NH <sub>2</sub>	Cl
5	F	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
6	F	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
7	-OCH <sub>3</sub>	H	-NH <sub>2</sub>	Cl
8	H	H	-CH <sub>2</sub> NH <sub>2</sub>	CH <sub>3</sub>
9	H	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	CH <sub>3</sub>
10	-OH	H	-NH <sub>2</sub>	Cl
11	-OH	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
12	-OH	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
13	H	H	-NH <sub>2</sub>	Cl
14	H	H	-CH <sub>2</sub> NH <sub>2</sub>	Cl
15	H	H	-CH(CH <sub>3</sub> )NH <sub>2</sub>	Cl
16	H	H	-NH <sub>2</sub>	OCH <sub>3</sub>
17	H	H	-CH <sub>2</sub> NH <sub>2</sub>	OCH <sub>3</sub>

example 16 that fully anticipates compounds of claims.

### Claim Objections

6. Claims 327-328, 333-340, 345, 347 and 349 are objected to as being dependent from rejected base claims.

*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Margaret Seaman whose telephone number is 571-272-0694. The examiner can normally be reached on 630am-4pm, First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecelia Tsang can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
D. Margaret Seaman  
Primary Examiner  
Art Unit 1625

dms